

REMARKS

Claim 23 of record corresponds to former claim 33 in independent form, and stands rejected as obvious over Potts '727 and Simpson '130 in further view of Gilbert '233 or Wipert. In the previous rejection of this claim set forth in the Office Action of February 12, 2008, the Examiner held that Potts does not specifically mention an organic phosphate ester antistatic agent, but Gilbert '233 and Wipert each disclose that it is known in the art to use an organic phosphate ester antistatic agent. The Examiner stated:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the antistatic agent [of Potts] from any suitable antistatic composition, such as an organic phosphate ester, as taught by Gilbert or Wipert, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

This rejection was based on the premise that one skilled in the art would substitute a known antistatic agent for the agent already present in the composition of Potts '727.

Applicant rebutted the basis for this rejection in the Amendment After Final filed on May 12, 2008, (which has been entered) by establishing that, even if one skilled in the art were to substitute the antistatic agents as suggested into the additive composition of Potts, the antistatic agent would be homogenously mixed with all of the other additives, including the fluoropolymer additive, and be present uniformly over the surfaces of the fibers. Thus, the antistatic agent would not be a separate element applied over a first dried fluoropolymer coating.¹ Applicant also pointed out that there

¹ The Examiner also held that claim 23 does not positively set forth that only one side of the laminate has the antistatic agent applied thereto. However, it appears that this distinction is moot in the Examiner's new grounds for rejection based on the same combination of references.

would be no logical reason for one skilled in the art to apply an additional or separate antistatic agent to the laminate of Potts '727 because the individual fibers already had antistatic properties due to the antistatic agent in the additive composition.

In the recent Advisory Action of May 22, 2008, the Examiner has sustained the rejection of claim 23 based on the same combination of references, but has applied the references in a different manner. In particular, the Examiner states:

Gilbert specifically discloses that there are advantages to externally applied antistatic agents (coatings) compared to internally applied agents (added to the base material). Gilbert discloses that internally applied agents do not produce an immediate effect but rather require as much as three days or more to migrate to the surface. In addition, Gilbert discloses that internally applied antistatic agents cause color problems. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to externally apply an antistatic agent to the laminate, rather than apply an internal antistatic agent, motivated by a desire to provide the laminate with an immediate antistatic effect and/or to avoid color problems.

This new basis for the obviousness rejection is premised on the assertion that, because of the alleged benefits of an externally applied antistatic agent taught by Gilbert '233, one skilled in the art would be motivated to eliminate the antistatic agent from the additive composition of Potts, and to instead apply the agent externally to the laminate. Applicant respectfully submits that this new basis for combining the references is not well founded, and is directly contrary to the teachings of the base reference.

The alleged advantages of external application of an antistatic agent described in Gilbert '233 are not relevant to the spunbond or meltblown layers of the present laminate. As set forth in the specification, spunbond fibers have an average diameter between about 10 and 20 microns, and meltblown fibers have an average diameter

smaller than 10 microns. The alleged benefit in Gilbert '233 related to the time for the antistatic agent to migrate to the surface of an extruded and sized tube or other shape is not applicable to micron-sized fibers, as is widely recognized and appreciated by those skilled in the art. Gilbert '233 relates to relatively large thermoplastic extruded tubes or other shapes having a length of about 8 inches and a diameter of about 33 millimeters (see example in column 4). This type of extruded and sized components have fundamentally different characteristics as compared to micron-sized fibers, and the concerns of Gilbert '233 simply do not relate to the fibers. In fact, Potts '727 expressly describes that migration of the additive in the polymer composition occurs as the fibers are formed:

... a mixture of an additive and a thermoplastic polymer, which additive in parts to the surfaces of said fibers, as a consequence of the preferential migration of said additive to the surfaces of said fibers as they are formed, at least one characteristic which is different from the surface characteristics of fibers prepared from said thermoplastic polymer alone, said preferential migration taking place spontaneously upon the formation of said fibers without the need for a post-formation treatment of any kind. (Column 18, lines 17 through 28)

Thus, Potts '727 expressly teaches that migration of the additive to the surface of the fiber happens essentially spontaneously upon formation of the fibers without the need for any further treatment. The time delay described in Gilbert '233 is simply not an issue with the laminate material of Potts '727, and thus one skilled in the art would not be motivated to eliminate the antistatic agent from the additive composition of Potts '727, and to subsequently externally apply the agent because of any such ill-effect time delay. In prior Office Actions, the Examiner has consistently held that there are no other meaningful distinctions between an externally applied additive as compared to an internal additive that has migrated to the surface of the fibers.

It is also respectfully submitted that the problem of “color formation during compounding” described in Gilbert ‘233 is not an issue in micron-sized extruded polymer fibers. The color inconsistency issue may be relevant in relatively large extruded tubes, bottles, and the like, but would not be relevant to micron-sized spunbond or meltblown fibers. Potts ‘727 describes various combinations of internal additives, as well as numerous examples of materials made with such combinations. There is no hint or suggestion in Potts ‘727 of any sort of “color formation” problem caused by the internal additives.


Also, as expounded in earlier responses, the express purpose and teaching of Potts ‘727 is to add the additive components (including any antistatic agent) as a component of the melt extruded fibers so as to eliminate the need for any external or post formation treatment of the fabrics. (Column 5, line 65 through column 6, line 3). One skilled in the art would not be motivated to ignore this express benefit and requirement of Potts ‘727 by externally applying an antistatic agent after formation of the laminate material, as suggested in the Examiner’s new basis for combining the references. It is respectfully submitted that there would need to be a compelling reason for one skilled in the art to make this change, and such compelling reason is not present in Gilbert ‘233, or any other reference of record. Potts ‘727 expressly teaches that the properties of the additives in the polymer composition (including the antistatic agent) are realized essentially spontaneously with formation of the fibers, and thus there is no reason for a subsequent external post treatment of the materials.

Accordingly, the Examiner is respectfully requested to reconsider the basis for the outstanding rejections of the pending claims. Applicant respectfully submits that all

of the pending claims patentably distinguish over the cited references, and are allowable. The present application is in condition for allowance. Favorable action thereon is respectfully requested. The Examiner is encouraged to contact the undersigned at his convenience should he have any questions regarding this matter or require any additional information.

Respectfully submitted,

DORITY & MANNING, P.A.

By: 
Stephen E. Bondura
Registration No.: 35,070

P.O. Box 1449
Greenville, SC 29602-1449
(864) 271-1592
fax (864) 233-7342